

PROVISION OF "NO OBJECTION CERTIFICATE" TO AN INDIVIDUAL FOR INSTALLING PRIVATE EV CHARGER(S) WITHIN SOCIETY PREMISES

The Government of Maharashtra launched the "Maharashtra State Electric Vehicle Policy 2021" in June 2021. This policy addresses the concerns of various stakeholders of the EV (Electric Vehicle) ecosystem by outlining the charging infrastructure development needs, demand, and supply-side fiscal and non-fiscal incentives to tackle the high upfront cost to facilitate a higher EV adoption rate and to increase production capacity. Though this policy is comprehensive, the provision for NOC (No Objection Certificate) issued by a housing society/RWA (Resident Welfare Association) to an individual EV owner for installing a private EV charger will further enhance the EV adoption rate in the city as private vehicles rely on home charging for up to 80% of their charging needs.

As installation of an EV charging station is a de-licensed activity, any individual who wishes to install an EV charger is free to do so. An NOC (template provided in Annexure-II) should be granted by the housing society/RWA to any EV owner that wishes to set up a charging point within the building premises, provided the guidelines prescribed in the Safety Advisory for EV Charging Stations (EVCS) across Maharashtra, issued by the Chief Electrical Inspector (CEI), Government of Maharashtra (No. CEI/Tech/283/2022) are adhered to by the individual installing the charger. The housing society/RWA should grant NOC to the EV owner within seven days from the date of application (template provided in Annexure-I). The safety advisory issued by CEI are given below.

Safety Advisory/ Standard Operating Procedure (SoP) for EV Charging Stations (EVCS) in Multistorey Buildings (Residential ,Commercial Premises/ Hotels/ Hospitals/ Malls/ Car Parks/ Places of Public Gatherings) for Two/Three/Four Wheelers across Maharashtra

Objective: The Objective of Standard Operating Procedure (SoP) is to ensure the Fire and Electrical safety of electrical vehicle charging stations during its operation cycle to safeguard the human life and property.

Scope of Work: As the charging methods could be either AC (Alternating Current) or DC (Direct Current) the safety requirements shall be able to address both working conditions.

For the safe and effective Functioning of the EV Charging Stations (EVCS) the following guidelines must be followed :

- Charging station installed by Housing societies, Malls, Residential, Multi story Buildings and Office complexes, Restaurants, Hotels, etc. provided that such stations meet the technical, Safety as well as performance standards and protocols laid down by Central Electricity Authority (Technical Standards for connectivity of the Distributed Generation Resources) Amendment Regulations 2019 and Central Electricity Authority (Measures related to Safety and Electric Supply) Amendment Regulations 2019) Maharashtra Fire Prevention and Life Safety Measures Act, 2006 and Directives issued from Urban Local Bodies Time to time.
- 2. All the electrical installation work for the charging station shall be carried out by the Licensed Electrical Contractor approved by the state government of Maharashtra
- 3. Where multiple chargers are in use, there should be clear and prominent notices at each charging point indicating for which equipment or vehicle(s) i.e., AC or DC it is suitable.

- 4. Where rapid charging points known as DC fast charge and operating at 500V DC are provided, they should be clearly differentiated from conventional charging points because of the hazards associated with the direct current, Measures should be taken to ensure that signs and labels associated with these chargers are not removed or defaced.
- 5. Where charging points are to be provided in multistorey car parks, consideration should be given to locating these in the open air at roof deck level to minimize potential for fire spread within the structure.
- 6. All electric vehicle charging points shall be installed so that any socket-outlet of supply is at least 800 millimeters above the Highest Flood level.
- 7. The electric vehicle parking place shall be such that the connection on the vehicle when parked for charging shall be within five meter from the electric vehicle charging point.
- 8. The charging point should be child-proof and preferably installed away from any children's play area.
- 9. Charging bays should be signed and marked prominently on the ground to allow vehicles to park close to the charging point and prevent the stretching of charging cables. The length of charging cables should be sufficient to allow their use with the intended equipment without risk of damage.
- 10. Charging points should be protected against mechanical damage by vehicles. They should be installed above ground level and be located on a raised island, or be protected by Krebs, bollards, or metal barriers. Charging points should also be protected against the ingress of water and foreign objects.
- 11. The parking of other vehicles in charging areas should be prohibited. In some cases, the introduction of barriers or other physical measures to prevent charging bays being used as conventional parking spaces, may need to be considered.
- 12. Where it is not practicable to provide this degree of physical separation of a vehicle charging area within a building as mentioned above (and outside the premises), no charging should be undertaken within 10m of any combustible materials: be they waste materials, stock, or combustible elements of the structure. Similarly, no charging should be undertaken within 15m of hazardous installations such as transformers, flammable liquid stores and liquefied petroleum gas tanks.

- 13. All chargers and associated equipment should be installed, used, and maintained in accordance with the manufacturer's instructions. Servicing and maintenance should be carried out by a competent licensed electrician.
- Electric Vehicle Supply Equipment (EVSE) shall be type tested by an agency /lab accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) or any other regulatory authority for this purpose from time to time.
- 15. Where the connection point is installed outdoors, or in a damp location, the equipment shall have a degree of Ingress Protection Code) in accordance with IS/IEC 60529.

GENERAL SAFETY PROVISIONS RELATED TO E-SCOOTERS/BYCYCLE

- 1. While it is recognized that the users of this equipment have mobility difficulties, in blocks or flats and similar accommodation, e-scooters should not be taken to floors / Individual Flats for Charging Purpose.
- 2. Wherever possible, e-scooters should be parked and charged in locations away from harms-way and open to sky locations, designed for this purpose.
- 3. E-scooters should not be left parked in escape routes where they may form a fire hazard, or an obstruction in the event of the building being evacuated.
- 4. Where a dedicated e-scooter storage area is not provided, it is preferable for e-scooters to be charged during the day rather than at night, when people may be asleep in the building. Where this is not practicable, the process should be started manually and monitored for a short period before being left to operate unattended.
- 5. Where portable chargers are in use for e-scooters in commercial premises, they should be inspected periodically.
- 6. The batteries of e-scooters should not be covered by blankets or similar insulating materials when being charged.
- 7. For the E-Scooters/Bicycles with detachable/Portable batteries owner shall not use household 15A/3 pin switch socket for EV charging purpose. Dedicated EV Charger confirming to relevant standards shall be installed and used for the said purpose.

ELECTRCAL SAFETY PROVISIONS RELATED TO CHARGING STATIONS

- 1. Each EV charging installation shall have sufficient sanction load to accommodate house load along with EV charging in addition to it. Adequate measures shall be observed to mitigate the load requirements for EV charging by the owner. Also, augmentation of the wiring and cabling along with protection system must be carried out
- Each electric vehicle charging points shall be supplied individually by a dedicated final sub-circuit protected by an over current protective device such as MCB complying with IS/ IEC60947-2, IS/IEC60947-6-2 or the IS/IEC60269 series and the over current protective device shall be part of a switchboard
- 3. All electric vehicles charging stations shall be provided with protection against the overload input supply and output supply fittings.
- 4. Suitable lightning protection system shall be provided for the electric vehicles charging stations as per Indian Standards Code IS/ IEC 62305.
- 5. The electric vehicle charging station shall be equipped with a protective device against the uncontrolled reverse power flow from vehicle.
- 6. If in case EV Charging station is being used for public charging purpose an emergency push button shall be provided at the power incomer side for disconnection of power supply to public EV charging station.
- 7. Three phases Electrical Vehicle Supply Equipment (EVSE) shall be equally loaded in all phases.
- 8. All residual current device for the protection of supplies for electric vehicle shall,
 - (a) Have a residual operating current of not greater than 30 mA.
 - (b) interrupt all live conductors, including the neutral; and
 - (c) Have a performance at least equal to Type A and be in conformity with IS732
- 9. Where required for service reasons, discrimination (selectivity) shall be maintained between the residual current device/miniature circuit breaker of suitable type protecting a connecting point and installed upstream.

- 10. A Surge Protective Device (SPD) shall be installed upstream of residual current device to limit transient over voltages due to lightning or switching
- 11. All electric vehicle charging stations shall be provided with an earth continuity monitoring system that disconnects the supply if the earthing connection to the vehicle becomes ineffective.
- 12. Earthing of all electric vehicle charging stations shall be as per IS 732
- 13. The cable may be fitted with an earth-connected metal shielding and the cable insulation shall be wear resistant and maintain flexibility over the full temperature range.
- 14. No flammable or combustible material, other than those which form parts of the vehicle and their associated chargers, should be stored within the designated charging area.
- 15. Enclosure for charging station shall be made of fire-retardant material with selfextinguishing property and free from halogen
- 16. Fire Detection, alarm and control system shall be as per relevant Indian Standards.
- 17. The power cables/wires laid for EV charger(s) shall not be taken along other service pipes, gas lines and fire exit paths.
- Power supply cables used in charging station or charging points shall conform to IEC 62893-1 and 17505(Part-1) (Standard for Fire Survival Cables) and its relevant parts.

The Installation shall conform to the following Act, Rules, and Regulations & Standards:

- 1. Electric Vehicle (EV) policy Maharashtra 2021
- The relevant provisions of the Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2010 and The Electricity Act, 2003.
- 3. Central Electricity Authority (Measures Relating to Safety and Electric Supply) Amendment Regulations, 2019.
- Central Electricity Authority (Technical Standards for connectivity of the Distributed Generating Resources) Amendment Regulations, 2019.
- Ministry of Power, Government of India revised guidelines &standards order No12/2/2018-EV (Comp No. 244347) dated14/01/2022
- 6. IS 17017 Series of Standards & IS/ISO 15118
- Various orders/circulars related to EV charging stations published by CEI Maharashtra government

Outward No. CEI/Tech/ 283 /2022 Office of the Chief Electrical Inspector Industries, Energy & Labour Department 3rd Floor, Administrative Building, Ramakrishna Chemburkar Marg,

(Dinesh Khonde) Chief Electrical Inspector, Industry, Energy and Labour department, Maharashtra

Chembur (East), Mumbai-400071 10 OCT 2022

Copy to -

- 1. The Hon. Principal Secretary, Energy department, Mantralaya, Govt.of Maharashtra for information.
- 2. The Hon. Principal Secretary, Ministry of urban Development and Housing Affairs department ,Mantralaya , Govt.of Maharashtra for information
- 3. The Hon. Principal Secretary, Disaster Management Department ,Mantralaya, Govt.of Maharashtra for information
- The Hon. Municipal Commissioner, Municipal Corporation of Greater Mumbai (MCGM), for information.

Safety Advisory/ Standard Operating Procedure for EV Charging Stations (EVCS) across Maharashtra

- 5. The Hon. Addl. Municipal Commissioner (Western Suburb), Municipal Corporation of Greater Mumbai, for information.
- 6. The Hon. Principal Secretary, Transport Department, Mantralaya, Govt.of Maharashtra for information.
- 7. The Hon. Commissioner for Cooperation and Registrar, Cooperative Societies, for information.
- 8. The Director, R.I.O. (West), CEA Mumbai for information
- 9. Chairman & MD, Maharashtra State Electricity Distribution Company Limited (MSEDCL) for information
- 10. General Manager, Brihanmumbai Electric Supply & Transport (BEST) for information
- 11. Chief Executive Officer & Managing Director, TATA Power Company Limited for information
- 12. Vice President, Adani Electricity Mumbai Limited for information
- 13. Chief Executive Officer, Slum Rehabilitation Authority (SRA), Mumbai for information
- 14. The Hon. Principal Secretary -I, Transport Department ,Mantralaya , Govt. of Maharashtra for information
- 15. The Hon. Principal Secretary -II, Transport Department ,Mantralaya , Govt. of Maharashtra for information
- 16. The Chief Fire Officer, Mumbai Fire Brigade, Mumbai for information
- 17. The Hon. Municipal Commissioner Ahmednagar/ Amravati/ Aurangabad/ Bhiwandi/ Chandrapur/ Jalgaon/ Kalyan-Dombivli/ Kolhapur/ Mira- Bhayander/ Nagpur /Nanded-Waghala/ Nasik / Navi Mumbai/Panvel/ Pimpri Chinchwad/Sangli/ Miraj and Kupwad / Thane/ Ulhasnagar/Vasai-Virar Municipal Corporation for information.

Additional factors to be considered by residents while installing EV chargers:

- The EV owner shall bear the cost for individual load augmentation, cost of energy supply, additional demand chargers as applicable, EV charger(s) installation, electrical and civil work required for installing individual EV charger(s).
- 2. The overall aesthetics of the housing society/RWA shall not disturbed due to the electrical and civil work involved in the installation of the EV charger(s).
- The housing society/RWA is not liable for any electrical damage or maintenance issues of the EV charger(s) unless otherwise proven that the damages are due to actions by housing society/RWA.

ANNEXURE-I:

Sample template of No Objection Certificate request letter to the housing society/RWAs for installation of private EV charger

From,

XYZ (name) Address Date: DD/MM/YYYY

Τo,

The Secretary / Chairman, Name of housing society Address

Subject: Request for No Objection Certificate (NOC) for installing a private electric vehicle charger

Dear Sir / Madam,

I, XYZ of apartment no. x, have recently decided to purchase an electric vehicle (EV) due to personal preference. To charge my EV, I will need to install an EV charger at my allotted parking space (parking spot no.).

I, therefore, request the housing society/ RWA to grant me a No Objection Certificate (NOC) to proceed with the installation of a private EV charger in my allotted parking space.

To further clarify, I will ensure that all conditions for obtaining a NOC for the installation of a private EV charger are adhered to, as per the circular titled "Provision of No Objection Certificate to an individual for setting up private EV charger within housing premises" issued by the Registrar of Societies.

Kindly grant me the NOC for hassle-free installation of a charger for my EV. Your support will be highly appreciated.

Yours sincerely,

(signature)

XYZ

ANNEXURE-II:

NOC by society on society's letterhead

A No-Objection Certificate (NOC) is hereby granted to the applicant <u>(name) as per request</u> <u>(ref. no) vide dated XXXX</u>, for the purpose of installing a private EV charger in his/her allocated parking space considering all conditions of the circular titled "Provision of No Objection Certificate to an individual for setting up private EV charger within housing premises" issued by the Registrar of Societies have been adhered to.

The private EV charger is liable to be inspected by the housing society/ RWA at any time following its installation. In the case that any conditions of the above-mentioned circular are found to be violated by the applicant, the NOC may be temporarily revoked with immediate effect. The applicant can be given 7 days to take the remedial measure(s) to meet all the compliance requirements which if not fulfilled in the given time may result in permanent revocation of the NOC.

Sign: _____

Name: _____

Society stamp

Authorized signatory

Name of the housing society